NO SHIT PRINT SERVER

USB RASPBERRY PI PRINT SERVER

Supports WIFI / LAN Android and Apple devices, You can set this up on any PC

\

---

1 Download and install the raspberry PI imager program for raspberry SD cards

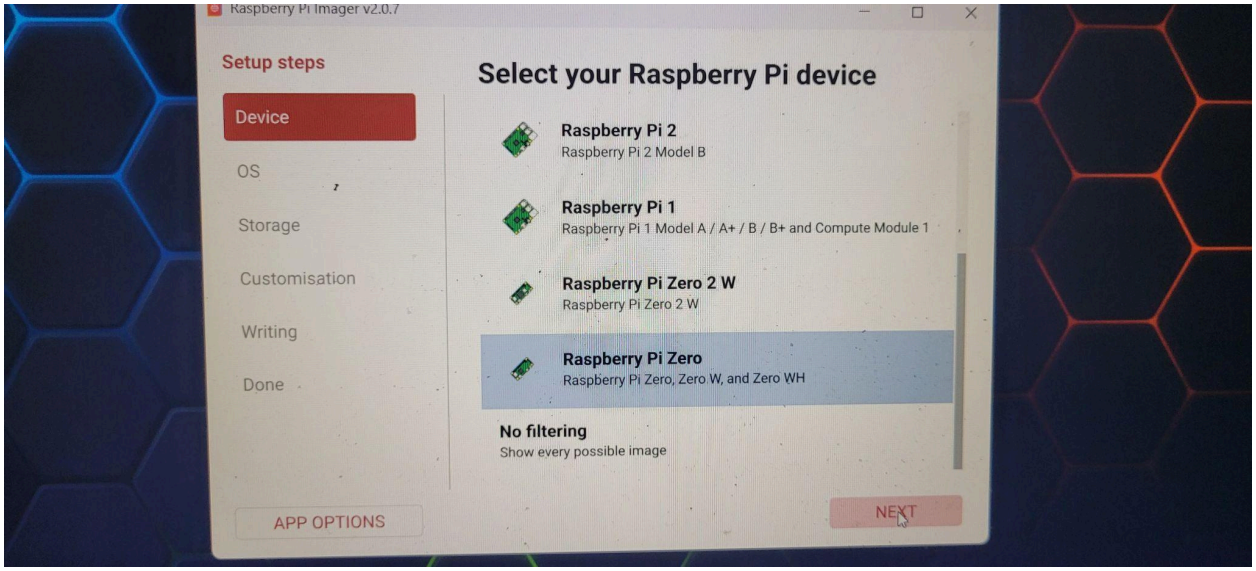
If you are using another type of PC download the desktop version and install that from a bootable USB stick

https://www.raspberrypi.com/software/

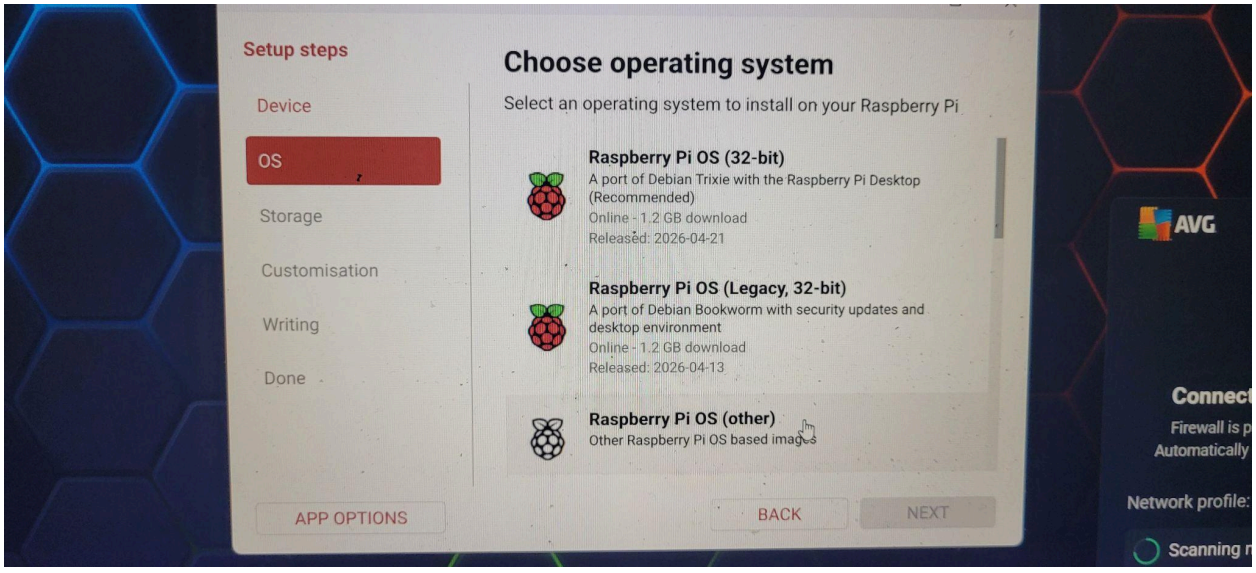
Note the setup of the SD imager on a raspberry card is done on a WINDOWS PC

Install Raspberry Software

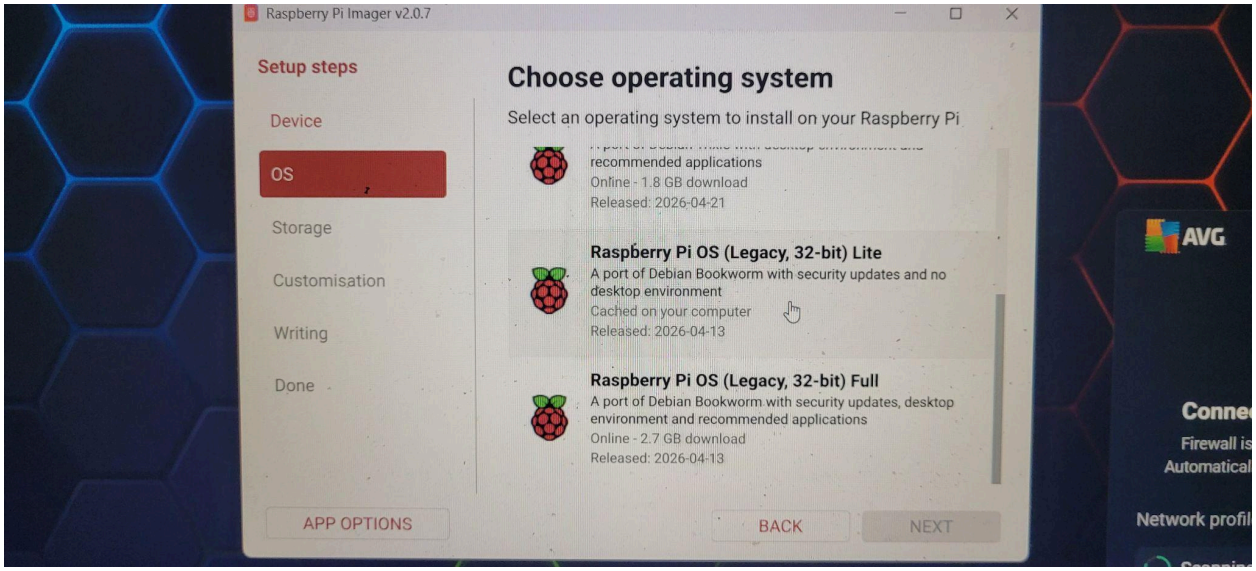
1. Select the hardware you will be using example “**Raspberry Pi Zero**”



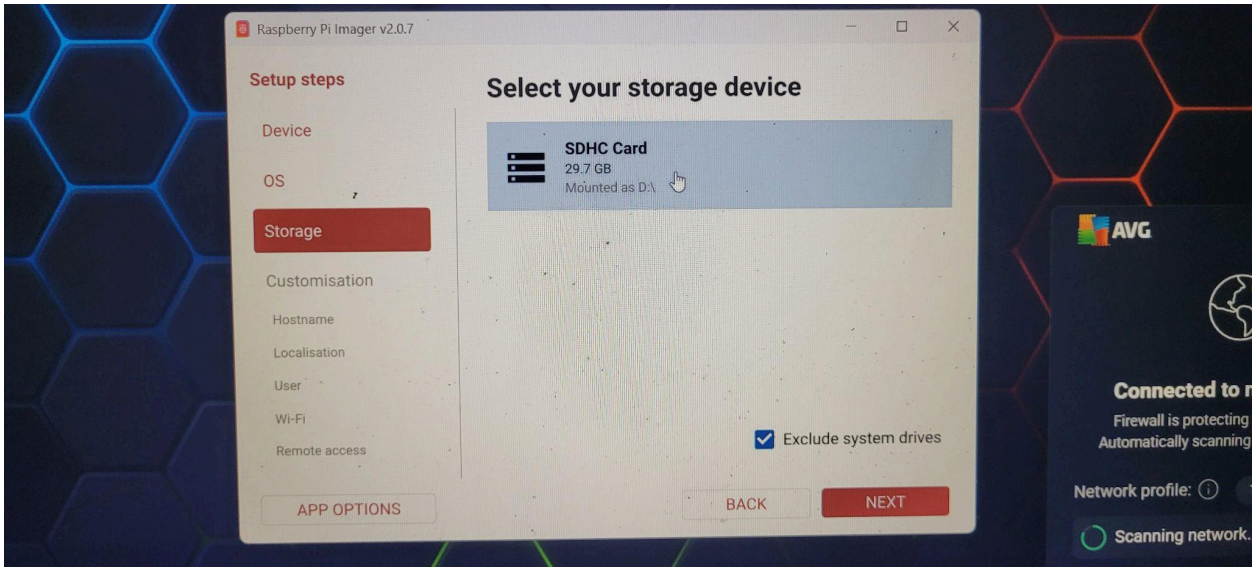
2. Select the software version to install, here we select “**Raspberry PI OS OTHER”**



3. Choose the lightest installation since we don't need much else for a printserver **“Raspberry Pi OS (Legacy 32-bit) Lite”** +-500mb

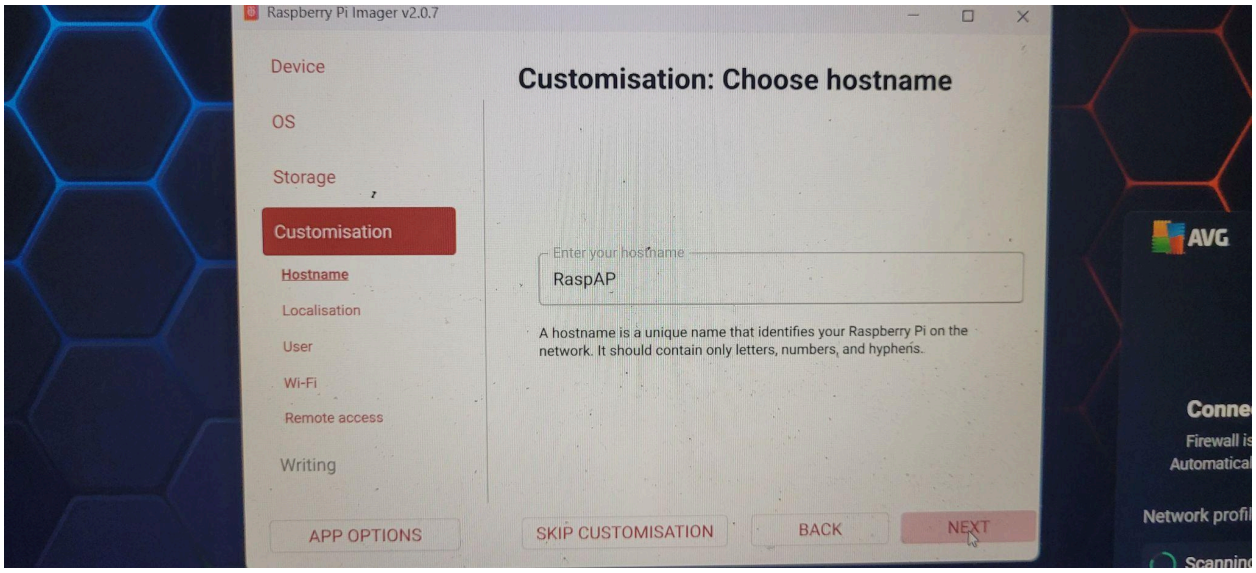


4. Select the drive we you to erase, make sure its the **SD card** you going to be using

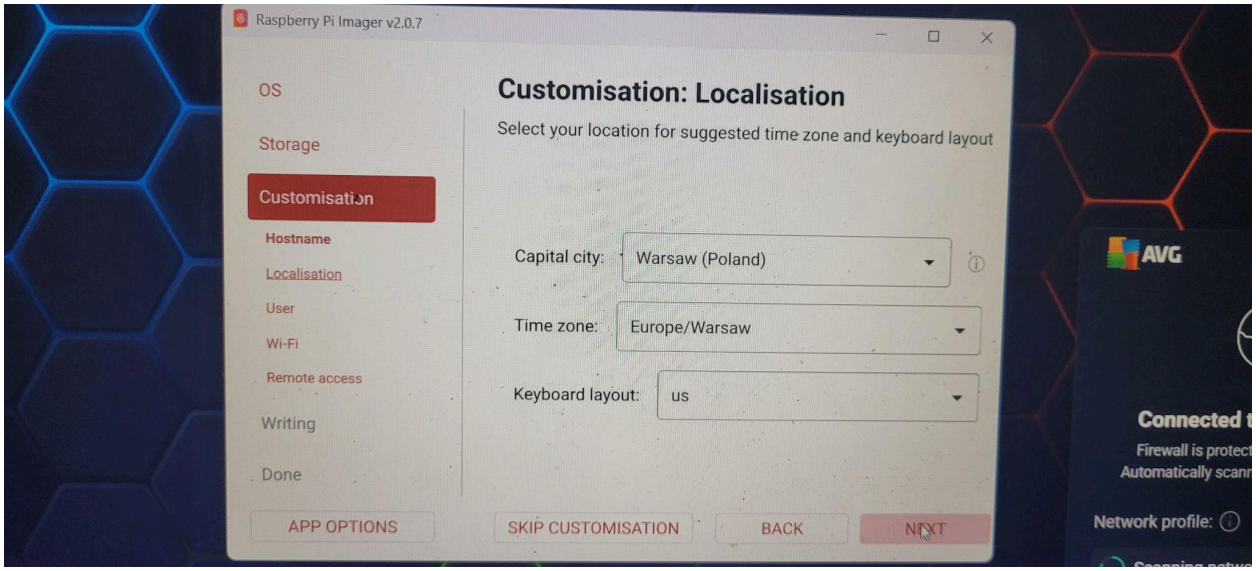


5. When prompted, enter a host name. This name is your computer name and will be seen on the network, try to be distinctive with the naming. example “**Printer1**”

Must be one word with no spaces.

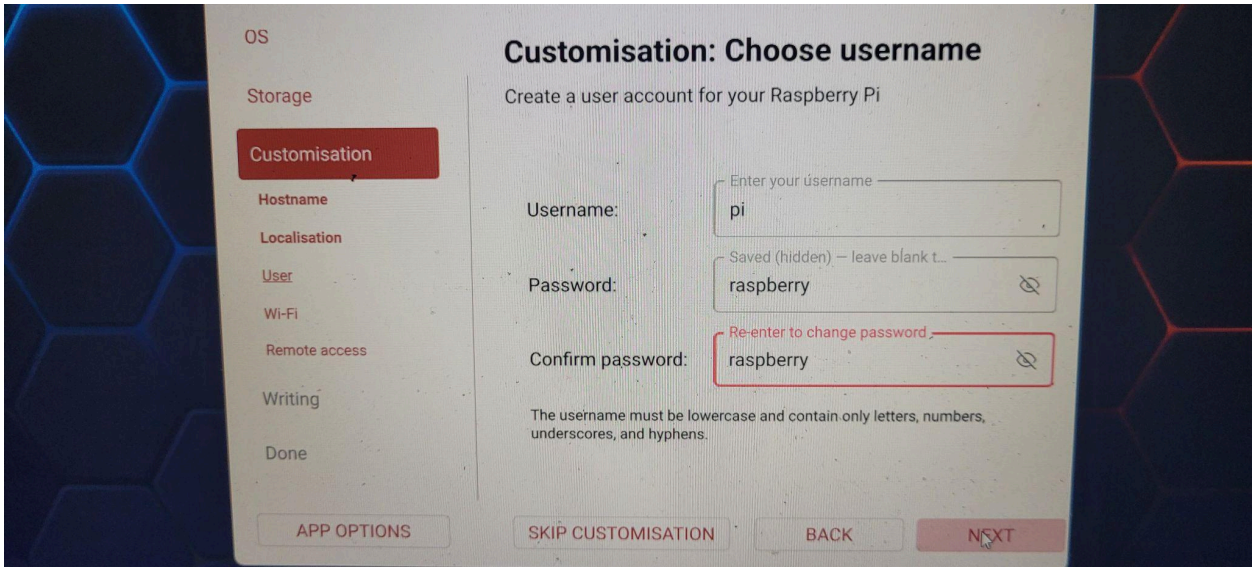


6. Next enter your city country, timezone and keyboard

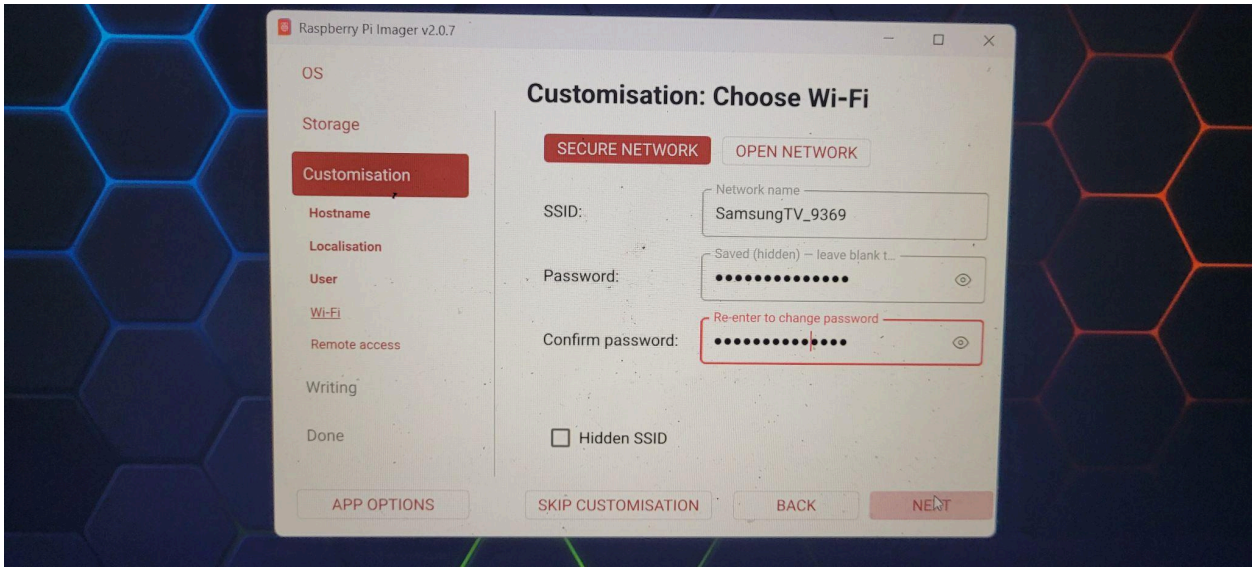


7. Enter the username and password, by default its

Username = **pi**
Password = **raspberry**

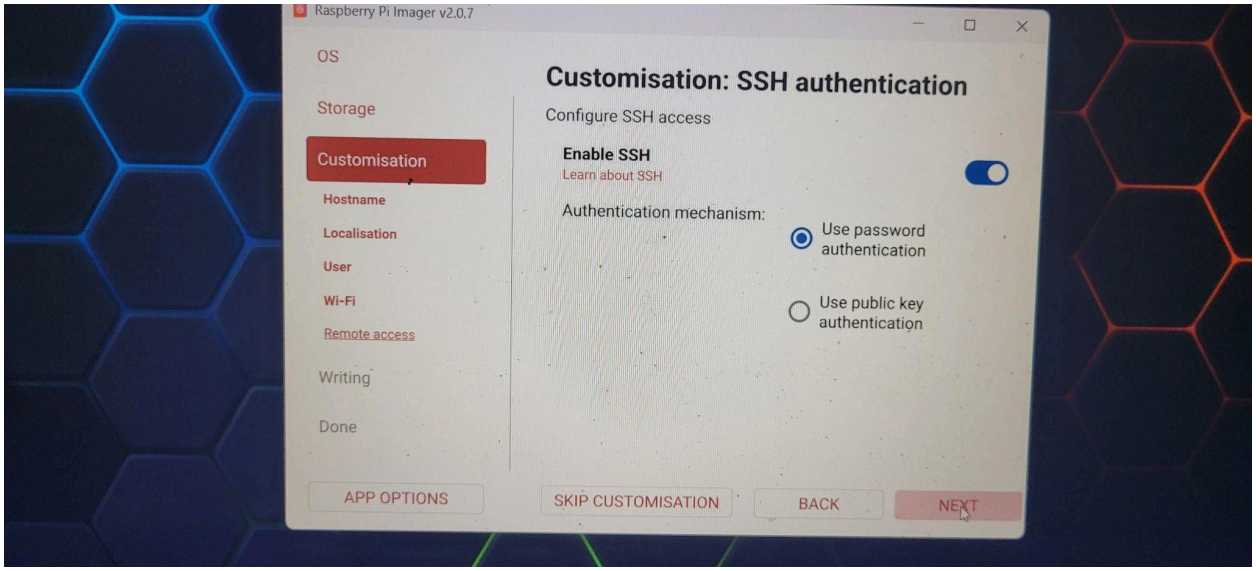


8. Next we enter the wifi SSID and password the system will connect onto your network, If your using an LAN it should find it automatically

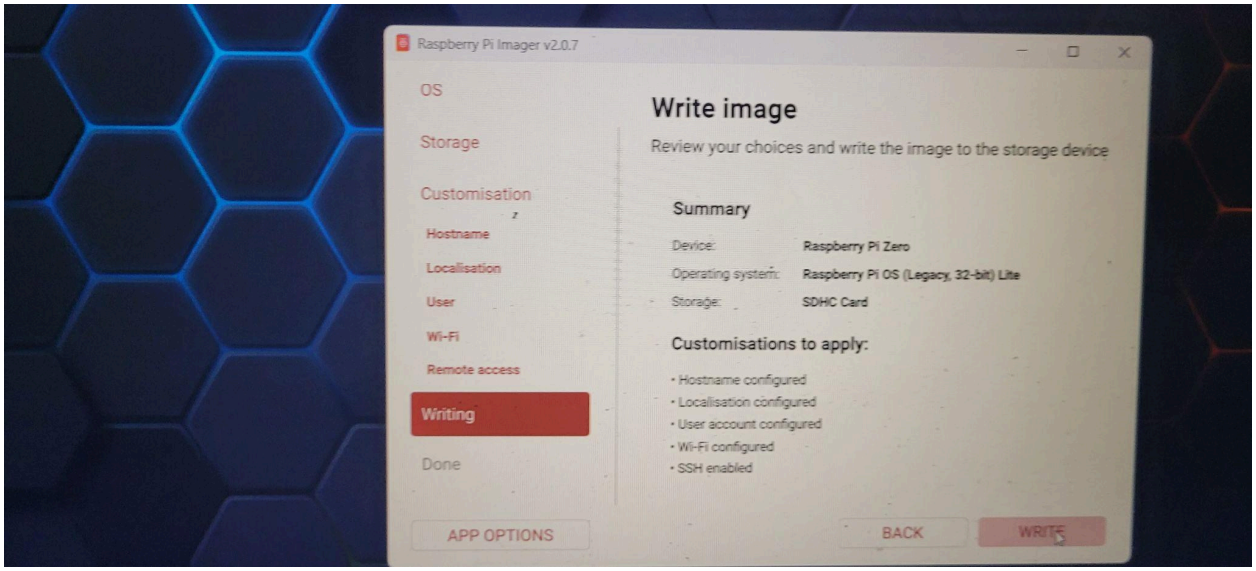


9. Next you will be asked to **enable SSH**, You want to enable this so you can admin the box and continue the setup

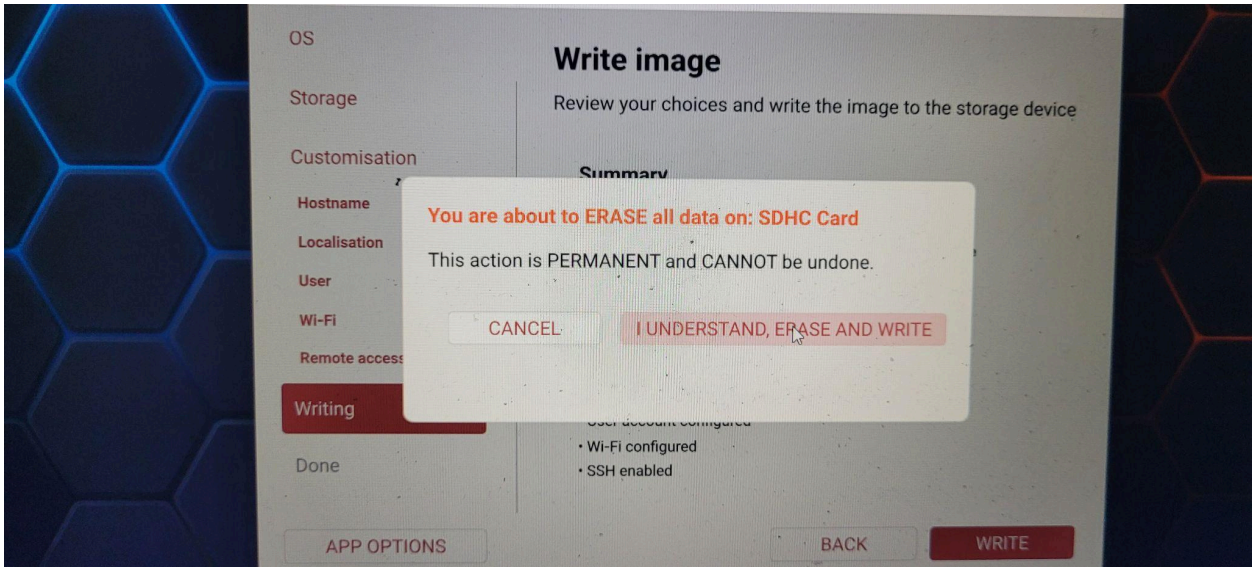
SSH is a remote way to work on the raspberry



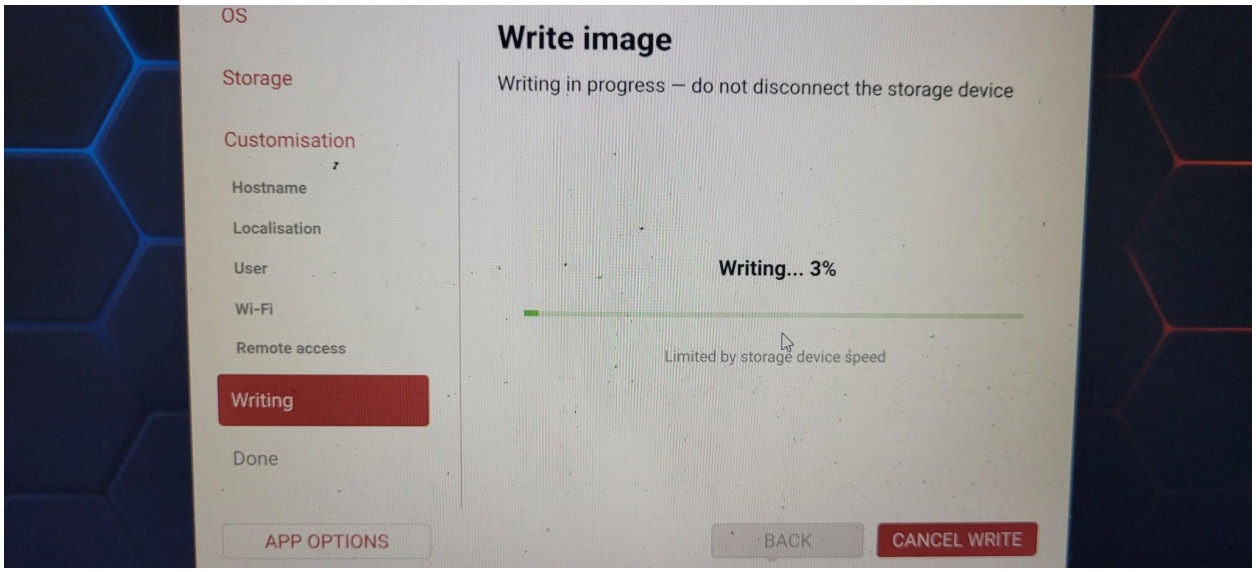
10. Next you will be asked to write the image



11. You are asked again to confirm the writing of the disk
    Make sure you doin it on the correct sd card or hdd



12. The system will write the disk, wait until its completed 100% and then safe to eject the SD when done

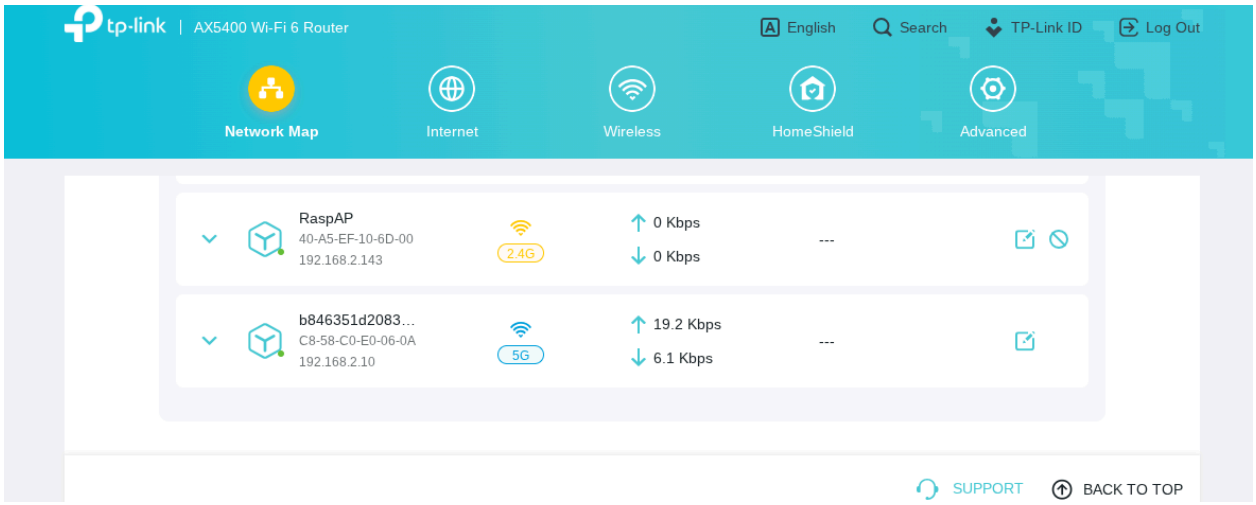


Setup your hardware

1. When done gently insert the SD card into the raspberry and power on

Search and find your IP address

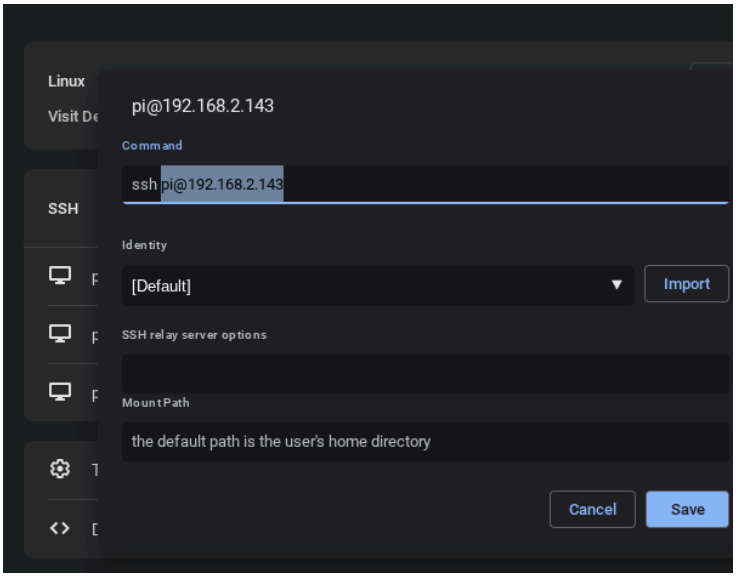
1. You now need to find the IP address your HOST is connected to, you can find this on your internet router **DHCP clients list**
   You can also find apps what can scan your network and show you hostnames and IPs



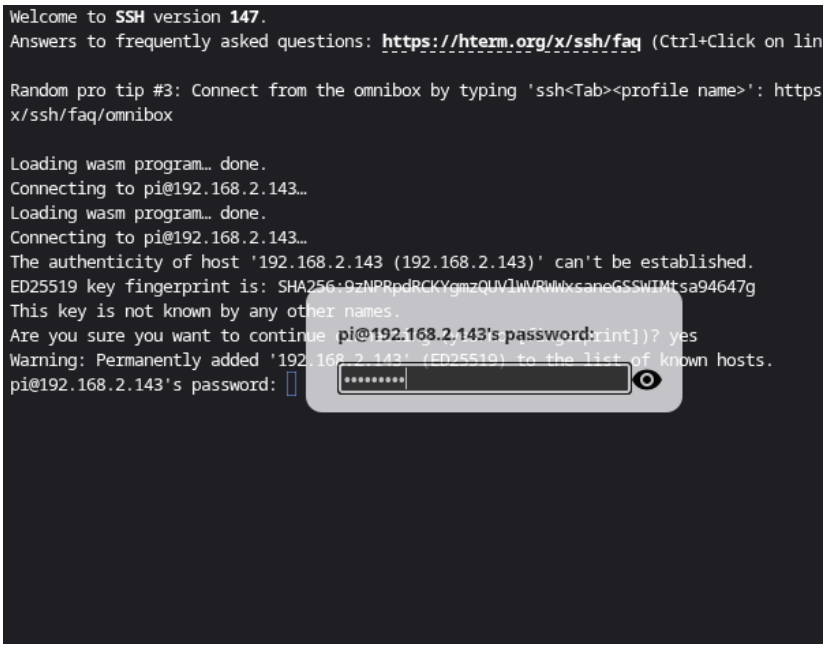
SSH LOGIN TO YOUR RASPBERRY

1. SSH to your host from your SSH client or Putty? You can use the IP or hostname you setup like RaspAp https://putty.org/index.html

pi@ipaddress or **pi@hostname**



2. Once you are logged in you may need to save the ssh certificate by saying "**Yes"** and the password "**raspberry**"


Welcome to SSH version 147.
Answers to frequently asked questions: https://hterm.org/x/ssh/faq (Ctrl+Click on lin
Random pro tip #3: Connect from the omnibox by typing 'ssh<Tab><profile name>': https
x/ssh/faq/omnibox
Loading wasm program… done.
Connecting to pi@192.168.2.143…
Loading wasm program… done.
Connecting to pi@192.168.2.143…
The authenticity of host '192.168.2.143 (192.168.2.143)' can't be established.
ED25519 key fingerprint is: SHA256:9zNPRpdRCKYgmzQUVlWVRWWxsaneGSSWIMtsa94647g
This key is not known by any other names.
Are you sure you want to continue
pi@192.168.2.143's password:
Warning: Permanently added '192.168.2.143' (ED25519) to the list of known hosts.
pi@192.168.2.143's password:

Setup CUPS PRINT SERVER

1. Install CUPS with the following command (type y when prompted)
sudo apt-get install cups

2. We now add the pi user to the lpadmin
sudo usermod -a -G lpadmin pi

3. Configure CUPS so it available over the network
sudo cupsctl --remote-any --remote-admin --share-printers

4. Restart CUPS
sudo service cups restart

Setup HP DRIVERS FOR PRINTERS

1. Install the HP driver set
sudo apt-get install hplip

Setup SAMBA for Windows to browse printers

1. Next we install Samba for windows to see the printers
sudo apt-get install samba samba-common-bin

2. Next we need to edit the smb.conf file and edit the selecϴon below
sudo nano /etc/samba/smb.conf

```
#############################################################################
# SEARCH FOR THESE SECTIONS IN THE FILE AND MAKE THEM LOOK THE SAME

[printers]
 comment = All Printers
 browseable = yes
 path = /var/spool/samba
 printable = yes
 guest ok = yes
 read only = no
 create mask = 0700

# printer drivers
[print$]
 comment = Printer Drivers
 path = /var/lib/samba/printers
 browseable = yes
 read only = no
 guest ok = yes


#############################################################################
```

3. Restart the samba services
sudo service smbd restart

—----------

SETUP THE PRINTER IN CUPS WEB URL

1. Open CUPS printer URL page so we can add a printer, make sure the printer is connected

Example https://192.168.0.2:631 or https://hostname:631

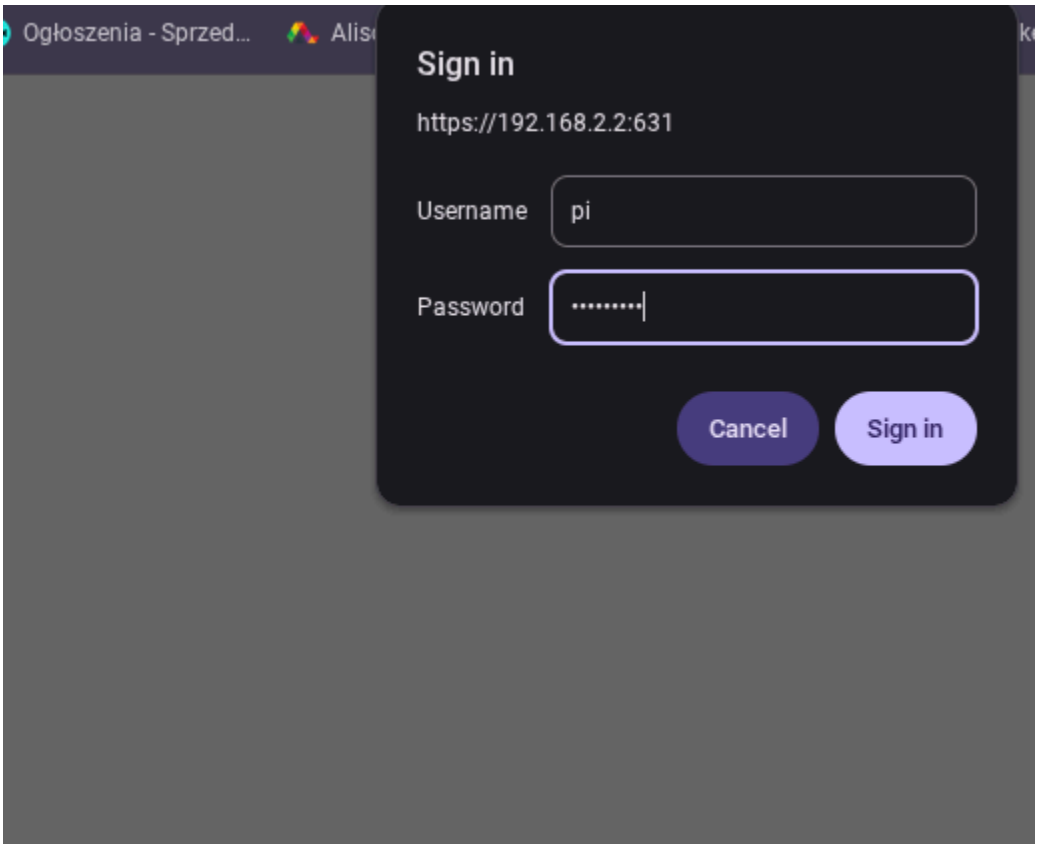
2. Click on **Administration** Tab

3. Click on **FIND NEW PRINTERS**, it works better than Add Printer

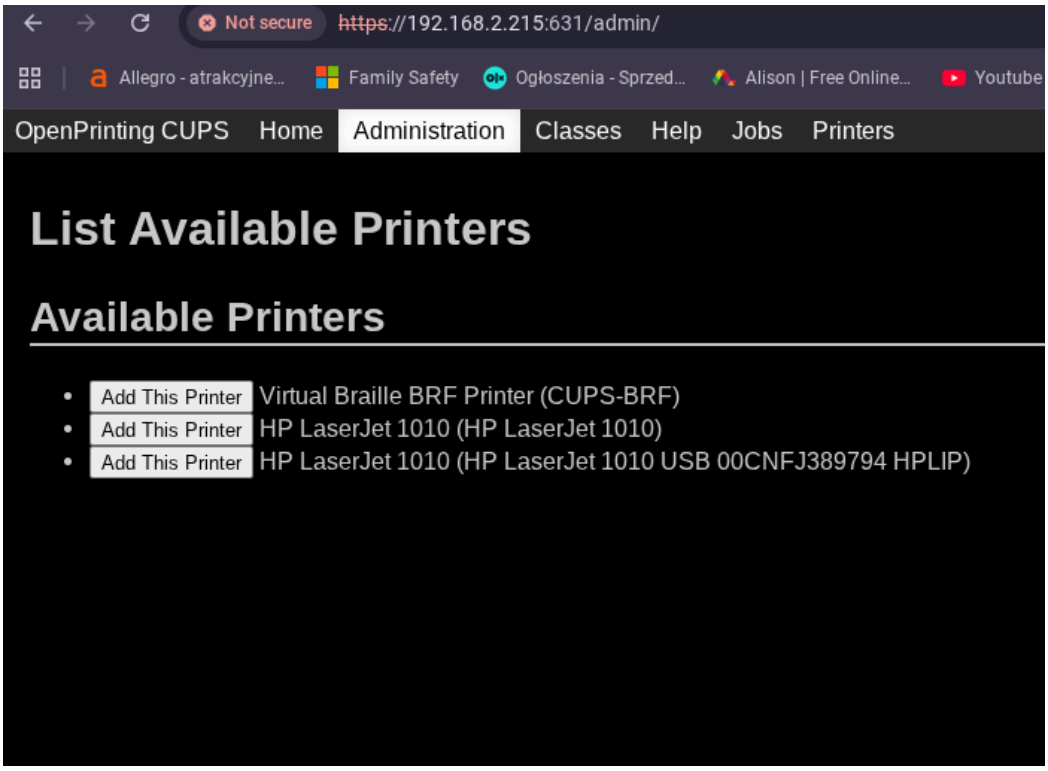
4. You may get an **error UPGRADE REQUIRED** if you use http instead of https

5. **Click Continue**

6. You may also be prompted to enter the **username and password “pi” - “raspberry”**

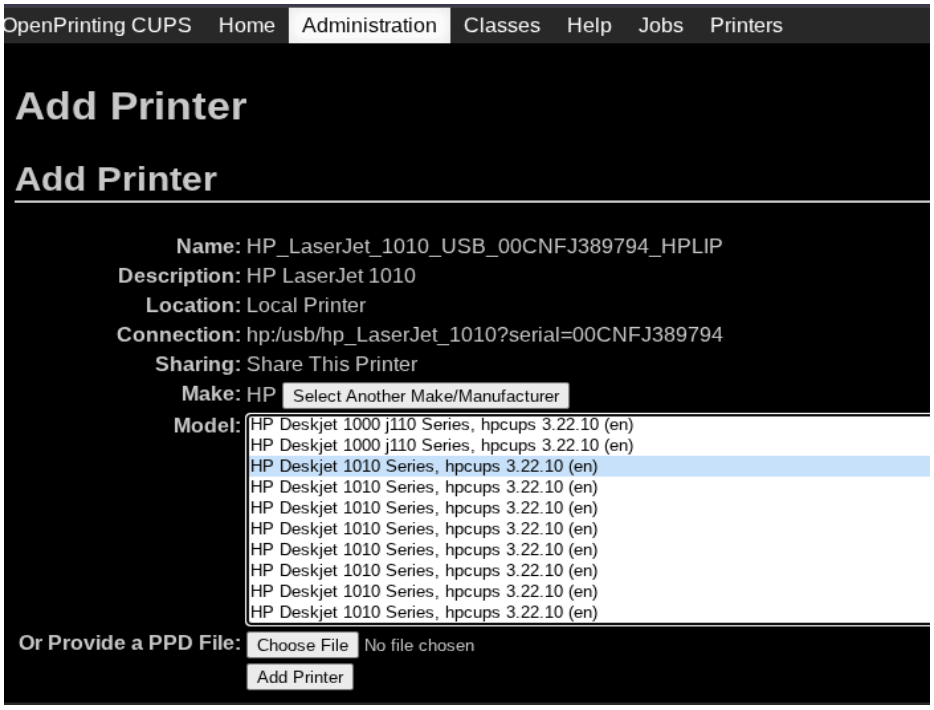


7. Click on **ADD THIS PRINTER**
   I like to choose the one with USB labeling

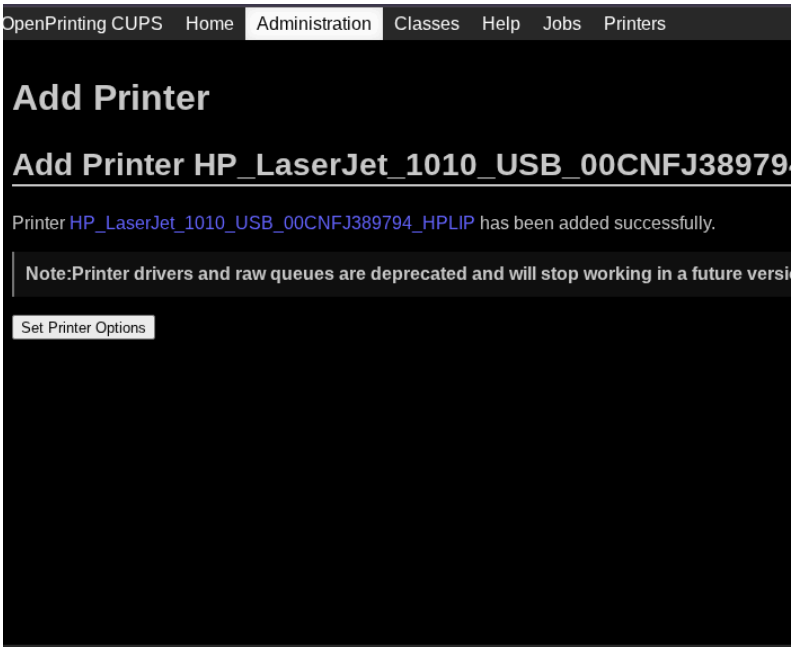


8. Important Click Tick on **SHARE THIS PRINTER** and then **CONTINUE**

9. **Select the Printer Driver** and then click **Add Printer**



10. Note down the **Printer Name**
    This is the long blue name you will need it for 9100 printing



SETUP HPJETDIRECT PORT 9100 PRINTING

Notes: sudo lpadmin -p HP_LaserJet_1010 -E -v socket://192.168.0.2:9100

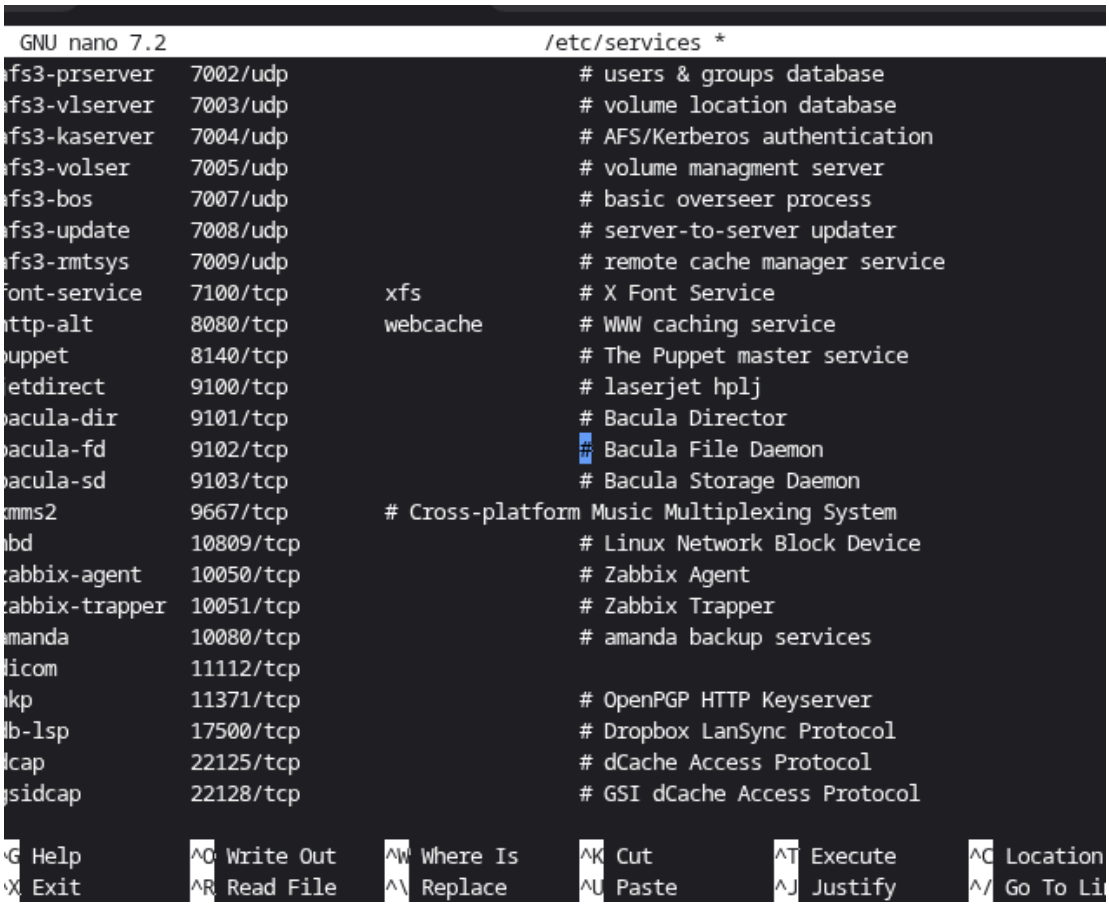
1.Install xinetd
sudo apt-get install xinetd

2.Edit the services file and add the jetdirect port 9100
sudo nano /etc/services

##################################

jetdirect 9100/tcp # laserjet hplj

##################################


GNU nano 7.2 /etc/services *
afs3-prserver 7002/udp # users & groups database
afs3-vlserver 7003/udp # volume location database
afs3-kaserver 7004/udp # AFS/Kerberos authentication
afs3-volser 7005/udp # volume managment server
afs3-bos 7007/udp # basic overseer process
afs3-update 7008/udp # server-to-server updater
afs3-rmtsys 7009/udp # remote cache manager service
font-service 7100/tcp xfs # X Font Service
http-alt 8080/tcp webcache # WWW caching service
puppet 8140/tcp # The Puppet master service
jetdirect 9100/tcp # laserjet hplj
bacula-dir 9101/tcp # Bacula Director
bacula-fd 9102/tcp # Bacula File Daemon
bacula-sd 9103/tcp # Bacula Storage Daemon
xmms2 9667/tcp # Cross-platform Music Multiplexing System
nbd 10809/tcp # Linux Network Block Device
zabbix-agent 10050/tcp # Zabbix Agent
zabbix-trapper 10051/tcp # Zabbix Trapper
amanda 10080/tcp # amanda backup services
idicom 11112/tcp
hkp 11371/tcp # OpenPGP HTTP Keyserver
db-lsp 17500/tcp # Dropbox LanSync Protocol
dcap 22125/tcp # dCache Access Protocol
gsidcap 22128/tcp # GSI dCache Access Protocol
^G Help ^O Write Out ^W Where Is ^K Cut ^T Execute ^C Location
^X Exit ^R Read File ^\ Replace ^U Paste ^J Justify ^/ Go To Li

3.To start listening on port 9100 edit the following file and add your blue printer name you noted down in this file with the rest of the settings, it should be a new file.

sudo nano /etc/xinetd.d/jetdirect

```
##############################################################################
# Allow applications using the AppSocket / JetDirect protocol
service jetdirect
{
 socket_type = stream
 protocol = tcp
 wait = no
 user = lp
Server = /usr/bin/lp
# CHANGE TO YOUR CUPS PRINTER QUEUE NAME example hp-LaserJet-1010
 server_args = -d SHAREDPRINTERNAMEINBLUEHERE -o raw
 groups = yes
 disable = no
}

##############################################################################
```

4.Restart the xinetd and cups service
sudo service xinetd restart
sudo service cups restart

—----------

SETUP APPLE AIRPRINT

1. Let's install AirPrint
sudo apt install avahi-daemon

—----------

SETUP CLEARING OUT STUCK PRINT JOBS

Sometimes print jobs get stuck in the spool and we need to clear them out automatically
If its a print sensitive printer where the user cannot reprint, we don't do this and the url needs to be visited and the print job restarted, else its effective just to tell the user SWITCH OFF AND ON AGAIN to repair the problem with less time wanted on troubleshooting.

1. Edit the cron jobs

   sudo crontab -e

##############################

@reboot /usr/bin/cancel - a -x

##############################

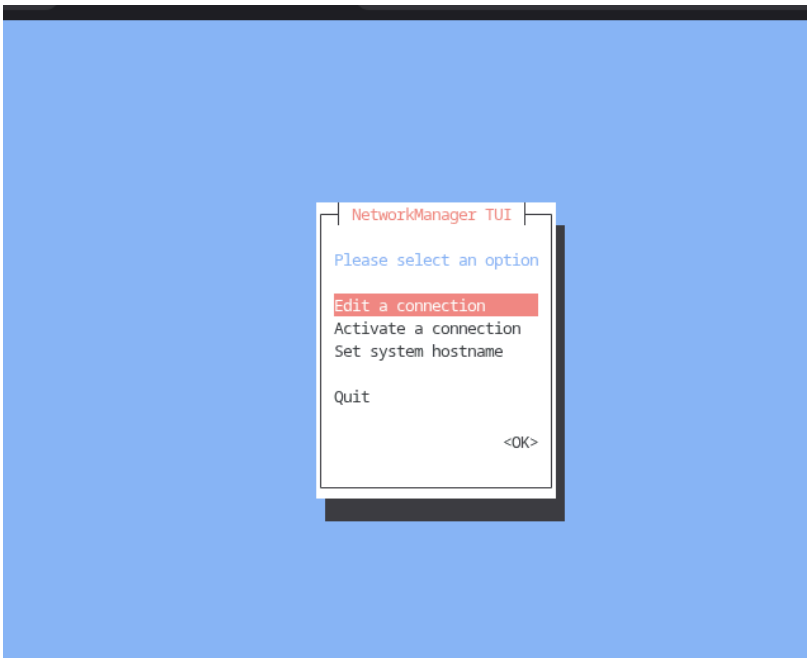
2. Restart the Cron

   sudo service cron restart

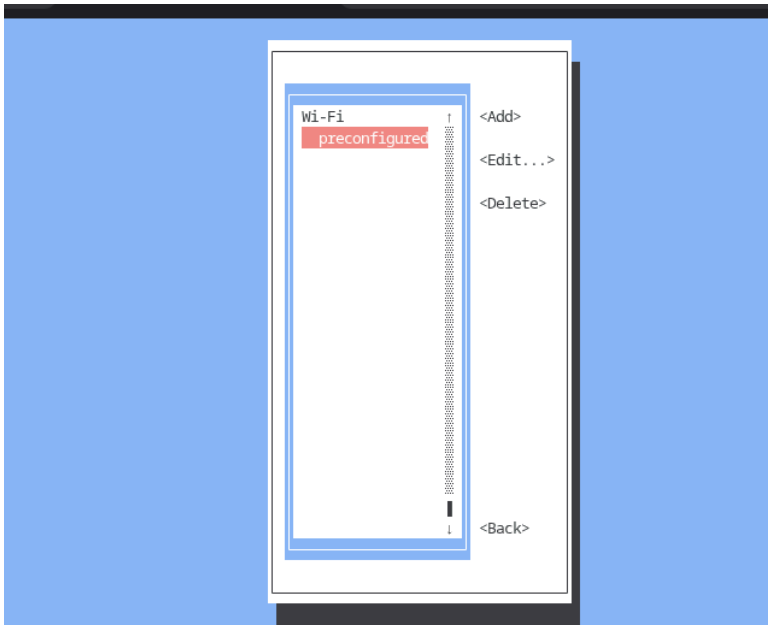
SETUP A STATIC IP OR CHANGE NETWORK SETTINGS

1. Changing the Dynamic IP Address to static

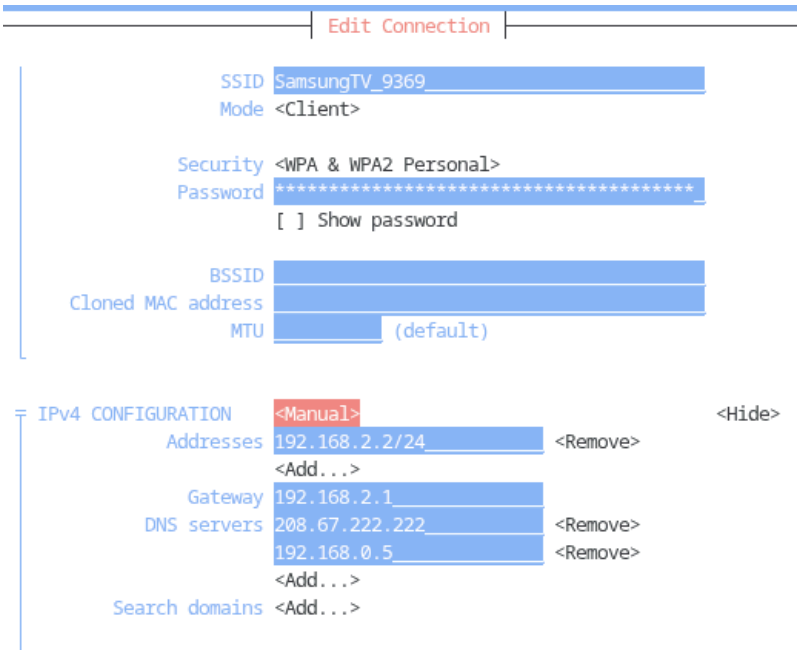
   sudo nmtui



2. Edit The connection



3. Enter your static IP details and save



FIN